

Atty Dkt. No.: SERA-001
USSN: 10/817,319

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An apparatus for use in a mass flow meter for immersion in a fluid, comprising:
a velocity sensor element comprising an elongate body for extending into the fluid, said elongate body comprising a housing shell, a distal end of said housing shell receiving and closely holding a spacer therein, said spacer comprising a solid body of metal receiving and closely holding a thin-film Resistance Temperature Detector (RTD) sensor therein, said sensor comprising an active area and electrical leads to carry current to said active area from a proximal end of said shell, said active area in substantially gap-free contact with an internal abutting spacer area.
2. (Original) The apparatus of claim 1, further comprising a second temperature sensor.
3. (Original) The apparatus of claim 2, wherein said second temperature sensor is a thin-film RTD sensor.
4. (Original) The apparatus of claim 1, wherein said spacer is in substantially gap-free contact with said housing shell.
5. (Original) The apparatus of claim 1, further comprising a temperature sensor element comprising a fluid temperature sensor.
6. (Original) The apparatus of claim 5, wherein said fluid temperature sensor element comprises two temperature sensors within a housing.
7. (Original) The apparatus of claim 6, wherein said temperature sensors are thin-film RTD temperature sensors.

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8. (Original) The apparatus of claim 5, further comprising a computer processor.
9. (Original) The apparatus of claim 5, further comprising an open protective housing adapted to axially receive said velocity and temperature sensor elements.
10. (Original) The apparatus of claim 9, wherein said open protective housing includes at least one feature proximal to a distal end of either sensor element at the exterior of the housing to redirect the axial component of the velocity vector of the fluid flowing over the exterior of the housing.
11. (Original) The apparatus of claim 9, wherein a distal end of said housing is closed.
12. (Original) The apparatus of claim 10, wherein said feature comprises a shoulder section.
13. (Original) The apparatus of claim 5, configured as an insertion flow meter.
14. (Original) The apparatus of claim 5, configured as an in-line flow meter.
15. (Original) The apparatus of claim 1, wherein said spacer comprises a powdered metal fabricated piece.
16. (Currently Amended) The apparatus of claim ~~16~~ 15, wherein said powdered metal comprises copper.
17. (Currently Amended) The apparatus of claim ~~16~~ 15, wherein said housing shell comprises stainless steel.

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18. (Original) The apparatus of claim 1, wherein said housing shell exerts radial force upon said spacer and said spacer exerts force holding said temperature sensor in stable position.

19.-32. (Cancelled, without Prejudice)